# *Hydrologic Model Manager*

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| **Short Name** | ROMS |
| **Long Name** | River Operations Modeling System |
| **Description** | ROMS is an user interactive model that simulates the<br><br>operations of reservoirs and streams in a given river basin. The model is designed for site specific<br><br>applications for applications with one or more reservoirs handling reservoir releases for irrigation,<br><br>municipal and industrial supply, river fishery, flood control and power generation. The model was initially<br><br>designed for the purpose of assisting with the development of reservoir operational plans but has since<br><br>been expanded for use as a planning tool as well. The model allows the user to evaluate a number of<br><br>“what if” situation to determine the effects of various operational criteria on river flow, water supply,<br><br>power generation and reservoir levels. The model operates in a PC environment utilizing all of the<br><br>user friendly features of Microsoft Windows. It is also designed to interface readily with spreadsheet<br><br>programs such as Excel. |
| **Model Type** | Surface water modeling, reservoir operations, site-specific model. |
| **Model Objectives** | |
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| **Model Structure** | |
| **Interception** | |
| **Groundwater** | |
| **Snowmelt** | |
| **Precipitation** | |
| **Evapo-transpiration** | |
| **Infiltration** | |
| **Model Paramters** | |
| **Spatial Scale** | Reservoir systems, basin wide |
| **Temporal Scale** | Monthly |
| **Input Requirements** | Monthly flow records, section gains, water<br><br>Demands, minimum flow requirements, beginning reservoir storage,_reservoir constraints, and reservoir |

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| | Target levels, A-C tables, power generation vs. head relationships, power plant availability factors, and<br><br>Power plant capacity |
| **Computer Requirements** | Windows 3.1, NT, Excel spreadsheet preferred but not required. |
| **Model Output** | Monthly data, all pertinent<br><br>data such as water use, reservoir level, river flow, power generation, etc. Data can be readily exported<br><br>to a spreadsheet in various formats allowing for summary tables or graphs |
| **Parameter Estimatn Model Calibrtn** | |
| **Model Testing Verification** | |
| **Model Sensitivity** | |
| **Model Reliabiity** | Good reliability. |
| **Model Application** | |
| **Documentation** | Good documentation available. |
| **Other Comments** | Strengths: Window based programs runs on PC, ability to evaluate both short term and long<br><br>term scenaiors, good interface with user allowing easy adjustments to operating criteria, water<br><br>demands, etc._Near seamless interface with spreadsheet software to provide various summary tables,<br><br>graphs etc.<br>Weaknesses: Framwork model requiring some internal programming to fit specific site.<br>Skills required: No special skills required, user friendly software allows for editing of input data and other parameters<br><br>from within the model through window bases menus. Experience with spreadsheet programs can be<br><br>helpful to develop summary tables and graphs. Setting up a model for a new specific site require<br><br>programmer familiar with the program and C++. |
| **Date of Submission** | 5/8/2000 4:14:56 PM |
| **Developer** | |
| **Technical Contact** | |
| **Contact Organization** | |